

## CLAIMS

### WHAT IS CLAIMED IS:

1. A snowmobile comprising:
  - an engine including an output shaft;
  - a support member located adjacent to the engine;
  - a drive pulley and a driven pulley, each pulley rotatably mounted to the support member, with a drive belt positionable around the pulleys, the pulleys mounted on the support member so that the drive belt can be removed from the snowmobile by passing the drive belt over the pulleys.
2. The snowmobile of claim 1, wherein the support member is structured to maintain the drive pulley and the driven pulley in a substantially fixed position relative to each other.
3. The snowmobile of claim 1, further including an isolation member coupling the output shaft to the drive pulley.
4. The snowmobile of claim 1, further including an engine water pump mounted on the support member.
5. The snowmobile of claim 1, further including a gear case located within the support member, the gear case including a sprocket gear and a pulley gear.

6. The snowmobile of claim 5, wherein the pulley gear is coupled to the driven pulley, and the sprocket gear is coupled to a sprocket axle, and wherein the pulley gear and the sprocket gear are rotatably coupled within the gear case.

7. The snowmobile of claim 6, wherein a gear ratio between the pulley gear and the sprocket gear can range between about 2.0:1 and about 1.5:1.

8. The snowmobile of claim 1, wherein the support member absorbs heat generated by the engine, thereby minimizing heat absorbed by the drive pulley.

9. The snowmobile of claim 1, further including a housing structured to completely enclose the drive and driven pulleys.

10. The snowmobile of claim 1, wherein the support member comprises a substantially rigid casing.

11. The snowmobile of claim 1, wherein the drive and driven pulleys comprise centrifugal clutches.

12. A snowmobile employing a drive belt, the snowmobile comprising:  
an engine including an output shaft;  
a support member located adjacent to the engine;  
a drive pulley and a driven pulley, each pulley having an inboard side and an outboard side, with each pulley rotatably mounted to the support member on the inboard side only.

13. The snowmobile of claim 12, further including an isolation member coupling the output shaft to the drive pulley.

14. The snowmobile of claim 12, further including an engine water pump mounted on the support member.

15. The snowmobile of claim 12, further including a gear case located within the support member, the gear case including a sprocket gear and a pulley gear.

16. The snowmobile of claim 15, wherein the pulley gear is coupled to the driven pulley, and the sprocket gear is coupled to a sprocket axle, and wherein the pulley gear and the sprocket gear are rotatably coupled within the gear case.

17. The snowmobile of claim 16, wherein a gear ratio between the pulley gear and the sprocket gear can range between about 2.0:1 and about 1.5:1.

18. The snowmobile of claim 12, wherein the support member absorbs heat generated by the engine, thereby minimizing heat absorbed by the drive pulley.

19. The snowmobile of claim 12, further including a housing structured to completely enclose the drive and driven pulleys.

20. The snowmobile of claim 12, wherein the support member comprises a substantially rigid casing.

21. The snowmobile of claim 12, wherein the drive and driven pulleys comprise centrifugal clutches.

22. A drive train for a snowmobile employing an endless track and an engine having an output shaft, the drive train comprising:

    a support member coupled to a frame, the support member located adjacent to the engine;

    a drive pulley and a driven pulley, each pulley rotatably mounted to the support member, with an isolation member coupled to the drive pulley and to the output shaft; and

    a sprocket gear and a pulley gear rotatably coupled within the support member, the pulley gear coupled to the driven pulley and the sprocket gear coupled to the endless track.

23. The drive train of claim 22, further including an engine water pump mounted on the support member.

24. The drive train of claim 22, further including a gear case located within the support member, the gear case including the sprocket gear and the pulley gear.

25. The drive train of claim 22, wherein the support member absorbs heat generated by the engine, thereby minimizing heat absorbed by the drive pulley.

26. The drive train of claim 22, further including a housing structured to completely enclose the drive and driven pulleys.

27. The drive train of claim 22, wherein the support member comprises a substantially rigid cast-aluminum casing.

28. The drive train of claim 22, wherein the drive and driven pulleys comprise centrifugal clutches.

29. The drive train of claim 22, wherein a gear ratio between the pulley gear and the sprocket gear can range between about 2.0:1 and about 1.5:1.